IN THE CLAIMS:

Please amend claims 538-541, 543, 544, and 546 (with the changes as shown in the attachment) to read as follows:

538. A plating system, comprising:

an anterior cervical plate adapted to be applied to the anterior human cervical spine, said plate having a lower surface adapted to contact the anterior aspect of at least one cervical vertebral body and an upper surface opposite said lower surface, at least one bone screw receiving hole extending from said upper surface through said lower surface, said bone screw receiving hole being adapted to receive at least one bone screw for engaging the cervical vertebral body to attach said plate to the cervical spine; and

a bone screw adapted to attach said plate to the cervical vertebral body, said bone screw comprising:

a head adapted to block further forward motion of said screw through said bone screw receiving hole of said plate;

a tip for insertion into the cervical vertebral body;

a shaft between said tip and said head, said shaft having a mid-longitudinal axis and a root diameter at transverse cross sections along the mid-longitudinal axis, said shaft having a first shaft portion proximate said tip and a second shaft portion proximate said head, the root diameter of said first shaft portion being less than the root diameter of said second shaft portion; and

a thread along at least a portion of said shaft adapted to engage the cervical vertebral body, said thread having an outer diameter that is generally uniform along at least a substantial portion of each of said first and second shaft portions, said thread having a pitch, said pitch along at least a portion of the length of said first shaft portion being substantially the same as said pitch along at least a portion of the length of said second shaft portion, said thread having opposed side faces angled relative to each other to form a base at said root diameter of said shaft, said base being smaller proximate said second shaft

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portion than proximate said first shaft portion, said screw being made of a material suitable for implantation into the human skeleton.

539. A plating system, comprising:

an anterior cervical plate adapted to be applied to the anterior human cervical spine, said plate having a lower surface adapted to contact the anterior aspect of at least one cervical vertebral body and an upper surface opposite said lower surface, at least one bone screw receiving hole extending from said upper surface through said lower surface, said bone screw receiving hole being adapted to receive at least one bone screw for engaging the cervical vertebral body to attach said plate to the cervical spine; and

a bone screw adapted to attach said plate to the cervical vertebral body, said bone screw comprising:

a head adapted to block further forward motion of said screw through said bone screw receiving hole of said plate;

a tip for insertion into the cervical vertebral body;

a shaft between said tip and said head, said shaft having a mid-longitudinal axis and a root diameter at transverse cross sections along the mid-longitudinal axis, said shaft having a first shaft portion proximate said tip and a second shaft portion proximate said head, the root diameter of said first shaft portion being less than the root diameter of said second shaft portion; and

a thread along at least a portion of said shaft adapted to engage the cervical vertebral body, said thread having an outer diameter that is generally uniform along at least a substantial portion of each of said first and second shaft portions, said thread having a profile with opposed side faces and a crest, said crest along at least a portion of the length of said first shaft portion being substantially uniform to said crest along at least a portion of the length of said second shaft portion proximate said head, said screw being made of a material suitable for implantation into the human skeleton.

540. A plating system, comprising:

an anterior cervical plate adapted to be applied to the anterior human cervical spine, said plate having a lower surface adapted to contact the anterior aspect of at least one cervical vertebral body and an upper surface opposite said lower surface, at least one bone screw receiving hole extending from said upper surface through said lower surface, said bone screw receiving hole being adapted to receive at least one bone screw for engaging the cervical vertebral body to attach said plate to the cervical spine; and

a bone screw adapted to attach said plate to the cervical vertebral body, said bone screw comprising:

a head adapted to block further forward motion of said screw through said bone screw receiving hole of said plate;

a tip for insertion into the cervical vertebral body;

a shaft between said tip and said head, said shaft having a mid-longitudinal axis and a root diameter at transverse cross sections along the mid-longitudinal axis, said shaft having a first shaft portion proximate said tip and a second shaft portion proximate said head, the root diameter of said first shaft portion being less than the root diameter of said second shaft portion; and

a thread along at least a portion of said shaft adapted to engage the cervical vertebral body, said thread having an outer diameter that is generally uniform along at least a substantial portion of each of said first and second shaft portions, said thread having opposed side faces intersecting at an angle to form a crest along at least a portion of the length of said second shaft portion proximate said head, said thread having a pitch, said pitch along at least a portion of the length of said first shaft portion being substantially the same as said pitch along at least a portion of the length of said second shaft portion, said screw being made of a material suitable for implantation into the human skeleton.

541. A plating system, comprising:

an anterior cervical plate adapted to be applied to the anterior human cervical spine, said plate having a lower surface adapted to contact the anterior aspect of at

least one cervical vertebral body and an upper surface opposite said lower surface, at least one bone screw receiving hole extending from said upper surface through said lower surface, said bone screw receiving hole being adapted to receive at least one bone screw for engaging the cervical vertebral body to attach said plate to the cervical spine; and

a bone screw adapted to attach said plate to the cervical vertebral body, said bone screw comprising:

a head adapted to block further forward motion of said screw through said bone screw receiving hole of said plate;

a tip for insertion into the cervical vertebral body;

a shaft between said tip and said head, said shaft having a mid-longitudinal axis and a root diameter at transverse cross sections along the mid-longitudinal axis, said root diameter of said shaft being curved along at least a portion of the length of said shaft in a direction between said head and said tip along the mid-longitudinal axis of said shaft, said shaft having a first shaft portion proximate said tip and a second shaft portion proximate said head, the root diameter of said first shaft portion being less than the root diameter of said second shaft portion; and

a thread along at least a portion of said shaft adapted to engage the cervical vertebral body, said thread having an outer diameter that is generally uniform along at least a substantial portion of each of said first and second shaft portions, said screw being made of a material suitable for implantation into the human skeleton.

543. A plating system, comprising:

an anterior cervical plate adapted to be applied to the anterior human cervical spine, said plate having a lower surface adapted to contact the anterior aspect of at least one cervical vertebral body and an upper surface opposite said lower surface, at least one bone screw receiving hole extending from said upper surface through said lower surface, said bone screw receiving hole being adapted to receive at least one

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bone screw for engaging the cervical vertebral body to attach said plate to the cervical spine; and

a bone screw adapted to attach said plate to the cervical vertebral body, said bone screw comprising:

a shaft having a leading end configured to pass at least in part through said plate and adapted for insertion into the bone of a cervical vertebral body and a trailing end opposite said leading end, said shaft having a mid-longitudinal axis and a root diameter at transverse cross sections along the mid-longitudinal axis; and

a thread having a length along at least a portion of said shaft, said thread adapted to engage the bone of the vertebral body, said thread having opposed side faces being angled relative to each other to form an apex of said thread, said side faces forming an included angle in the range of 11 degrees to 30 degrees along said thread length, said screw being made of a material suitable for human implantation.

544. A plating system, comprising:

an anterior cervical plate adapted to be applied to the anterior human cervical spine, said plate having a lower surface adapted to contact the anterior aspect of at least one cervical vertebral body and an upper surface opposite said lower surface, at least one bone screw receiving hole extending from said upper surface through said lower surface, said bone screw receiving hole being adapted to receive at least one bone screw for engaging the cervical vertebral body to attach said plate to the cervical spine; and

a bone screw adapted to attach said plate to the cervical vertebral body, said bone screw comprising:

a shaft having a leading end configured to pass at least in part through said plate and adapted for insertion into the bone of a cervical vertebral body, a mid-longitudinal axis, and a trailing end opposite said leading end, said shaft having a root diameter at transverse cross sections along the mid-longitudinal axis; and

a thread along at least a portion of said shaft, said thread adapted to engage the bone of the cervical vertebral body, said thread having opposed side faces, said side faces being angled relative to each other to form a base at said root diameter of said shaft and a crest opposite said base, said side faces having at least three different base thicknesses therebetween in the range of 0.25 mm to 0.60 mm at said base, said screw being made of a material suitable for human implantation.

546. A plating system comprising:

an anterior cervical plate adapted to be applied to the anterior human cervical spine, said plate having a lower surface adapted to contact the anterior aspect of at least one cervical vertebral body and an upper surface opposite said lower surface, at least one bone screw receiving hole extending from said upper surface through said lower surface, said bone screw receiving hole being adapted to receive at least one bone screw for engaging the cervical vertebral body to attach said plate to the cervical spine; and

a bone screw adapted to attach said plate to the cervical vertebral body, said bone screw comprising:

a tip;

a head having a length in the range of 1 mm to 3 mm and a diameter in the range of 3.8 mm to 7.0 mm;

a shaft having a maximum root diameter in the range of 3.6 mm to 5.2 mm, said root diameter of said shaft being tapered from proximately below said head along the longitudinal axis of said shaft to proximately above said tip, said shaft having a length in the range of 10 mm to 22 mm; and

a thread on said shaft having a pitch in the range of 1.25 mm to 2.5 mm with a sharp and thin profile, said thread having two faces angled relative to each other to form an apex having an angle in the range of 11 degrees to 21 degrees, said thread having a base that is in the range of 0.25 to 0.6 mm thick, said thread having an outer diameter that is generally constant along a substantial portion of the length of said shaft.

Please add the following new claims:

547. The plating system of claim 538, wherein said root diameter of said shaft is curved along at least a portion of the length of said shaft in a direction between said head and said tip along the mid-longitudinal axis of said shaft.

548. The plating system of claim 547, wherein said root diameter of said shaft is at least a portion of a concave curve.

549. The plating system of claim 538, wherein said root diameter increases along a portion of said shaft in a direction from said tip toward said head of said screw.

550. The plating system of claim 549, wherein the rate of increase of said root diameter is greater proximate said head of said screw.

551. The plating system of claim 538, wherein said second shaft portion has a generally circular cross section.

552. The plating system of claim 538, wherein said second shaft portion is generally conical.

553. The plating system of claim 538, wherein said first shaft portion has a generally circular cross section.

554. The plating system of claim 538, wherein said first shaft portion is generally cylindrical.

555. The plating system of claim 538, wherein said tip is at least one of pointed, tapered, and coned.

556. The plating system of claim 538, wherein said tip is configured to be self-tapping.

557. The plating system of claim 556, wherein said tip includes at least one of a pointed tip, cutting flutes, and decreased thread height.

558. The plating system of claim 538, wherein said tip includes cutting flutes that interrupt at least one turn of said thread proximate said tip.

559. The plating system of claim 538, wherein said outer diameter of said thread diminishes proximate said tip.

560. The plating system of claim 538, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

561. The plating system of claim 538, wherein said thread pitch is in the range of 1.25 to 2.5 mm.

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562. The plating system of claim 538, wherein said thread has opposed side faces being angled relative to each other to form an apex of said thread, said side faces forming an included angle in the range of 11 degrees to 30 degrees.

563. The plating system of claim 538, wherein said thread has opposed side faces, said side faces being angled relative to each other to form a base at said root diameter of said shaft and a crest opposite said base, said side faces having a thickness therebetween in the range of 0.25 mm to 0.60 mm at said base.

564. The plating system of claim 538, wherein said screw has an overall length in the range of 10 mm to 22 mm.

565. The plating system of claim 538, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

566. The plating system of claim 538, wherein said head has a top surface that is at least in part curved.

567. The plating system of claim 538, wherein said head has a length parallel to the mid-longitudinal axis of said shaft in the range of 1 mm to 3 mm.

568. The plating system of claim 538, wherein said head has a diameter in the range of 3.8 mm to 6 mm.

569. The plating system of claim 538, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

570. The plating system of claim 569, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

571. The plating system of claim 538, in combination with a bone growth promoting material.

572. The plating system of claim 571, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

573. The plating system of claim 538, wherein at least a portion of said plating system is treated with a bone growth promoting substance.

574. The plating system of claim 538, wherein at least a portion of said plating system is at least in part resorbable.

575. The plating system of claim 538, wherein at least a portion of said plating system is formed of a porous material.

576. The plating system of claim 538, wherein at least a portion of said plating system is treated to promote bone ingrowth between said plate and the adjacent vertebral bodies.

577. The plating system of claim 539, wherein said root diameter of said shaft is curved along at least a portion of the length of said shaft in a direction between said head and said tip along the mid-longitudinal axis of said shaft.

578. The plating system of claim 577, wherein said root diameter of said shaft is at least a portion of a concave curve.

579. The plating system of claim 539, wherein said root diameter increases along a portion of said shaft in a direction from said tip toward said head of said screw.

580. The plating system of claim 579, wherein the rate of increase of said root diameter is greater proximate said head of said screw.

581. The plating system of claim 539, wherein said second shaft portion has a generally circular cross section.

582. The plating system of claim 539, wherein said second shaft portion is generally conical.

583. The plating system of claim 539, wherein said first shaft portion has a generally circular cross section.

584. The plating system of claim 539, wherein said first shaft portion is generally cylindrical.

585. The plating system of claim 539, wherein said tip is at least one of pointed, tapered, and coned.

586. The plating system of claim 539, wherein said tip is configured to be self-tapping.

587. The plating system of claim 586, wherein said tip includes at least one of a pointed tip, cutting flutes, and decreased thread height.

588. The plating system of claim 539, wherein said tip includes cutting flutes that interrupt at least one turn of said thread proximate said tip.

589. The plating system of claim 539, wherein said outer diameter of said thread diminishes proximate said tip.

590. The plating system of claim 539, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

591. The plating system of claim 539, wherein said thread has a pitch in the range of 1.25 to 2.5 mm.

592. The plating system of claim 539, wherein said opposed side faces are angled relative to each other to form an apex of said thread, said side faces forming an included angle in the range of 11 degrees to 30 degrees.

593. The plating system of claim 539, wherein said opposed side faces are angled relative to each other to form a base at said root diameter of said shaft and said crest being opposite said base, said side faces having a thickness therebetween in the range of 0.25 mm to 0.60 mm at said base.

594. The plating system of claim 539, wherein said screw has an overall length in the range of 10 mm to 22 mm.

595. The plating system of claim 539, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

596. The plating system of claim 539, wherein said head has a top surface that is at least in part curved.

597. The plating system of claim 539, wherein said head has a length parallel to the mid-longitudinal axis of said shaft in the range of 1 mm to 3 mm.

598. The plating system of claim 539, wherein said head has a diameter in the range of 3.8 mm to 6 mm.

599. The plating system of claim 539, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

600. The plating system of claim 599, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

601. The plating system of claim 539, in combination with a bone growth promoting material.

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602. The plating system of claim 601, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

603. The plating system of claim 539, wherein at least a portion of said plating system is treated with a bone growth promoting substance.

604. The plating system of claim 539, wherein at least a portion of said plating system is at least in part resorbable.

605. The plating system of claim 539, wherein at least a portion of said plating system is formed of a porous material.

606. The plating system of claim 539, wherein at least a portion of said plating system is treated to promote bone ingrowth between said plate and the adjacent vertebral bodies.

607. The plating system of claim 540, wherein said root diameter of said shaft is curved along at least a portion of the length of said shaft in a direction between said head and said tip along the mid-longitudinal axis of said shaft.

608. The plating system of claim 607, wherein said root diameter of said shaft is at least a portion of a concave curve.

609. The plating system of claim 540, wherein said root diameter increases along a portion of said shaft in a direction from said tip toward said head of said screw.

610. The plating system of claim 609, wherein the rate of increase of said root diameter is greater proximate said head of said screw.

611. The plating system of claim 540, wherein said second shaft portion has a generally circular cross section.

612. The plating system of claim 540, wherein said second shaft portion is generally conical.

613. The plating system of claim 540, wherein said first shaft portion has a generally circular cross section.

614. The plating system of claim 540, wherein said first shaft portion is generally cylindrical.

615. The plating system of claim 540, wherein said tip is at least one of pointed, tapered, and coned.

616. The plating system of claim 540, wherein said tip is configured to be self-tapping.

617. The plating system of claim 616, wherein said tip includes at least one of a pointed tip, cutting flutes, and decreased thread height.

618. The plating system of claim 540, wherein said tip includes cutting flutes that interrupt at least one turn of said thread proximate said tip.

619. The plating system of claim 540, wherein said outer diameter of said thread diminishes proximate said tip.

620. The plating system of claim 540, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

621. The plating system of claim 540, wherein said thread pitch is in the range of 1.25 to 2.5 mm.

622. The plating system of claim 540, wherein said opposed side faces are angled relative to each other to form an apex of said thread, said side faces forming an included angle in the range of 11 degrees to 30 degrees.

623. The plating system of claim 540, wherein said opposed side faces are angled relative to each other to form a base at said root diameter of said shaft and said crest being opposite said base, said side faces having a thickness therebetween in the range of 0.25 mm to 0.60 mm at said base.

624. The plating system of claim 540, wherein said screw has an overall length in the range of 10 mm to 22 mm.

625. The plating system of claim 540, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

626. The plating system of claim 540, wherein said head has a top surface that is at least in part curved.

627. The plating system of claim 540, wherein said head has a length parallel to the mid-longitudinal axis of said shaft in the range of 1 mm to 3 mm.

628. The plating system of claim 540, wherein said head has a diameter in the range of 3.8 mm to 6 mm.

629. The plating system of claim 540, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

630. The plating system of claim 629, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

631. The plating system of claim 540, in combination with a bone growth promoting material.

632. The plating system of claim 631, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

633. The plating system of claim 540, wherein at least a portion of said plating system is treated with a bone growth promoting substance.

634. The plating system of claim 540, wherein at least a portion of said plating system is at least in part resorbable.

635. The plating system of claim 540, wherein at least a portion of said plating system is formed of a porous material.

636. The plating system of claim 540, wherein at least a portion of said plating system is treated to promote bone ingrowth between said plate and the adjacent vertebral bodies.

637. The plating system of claim 541, wherein said root diameter of said shaft is at least a portion of a concave curve.

638. The plating system of claim 541, wherein said root diameter increases along a portion of said shaft in a direction from said tip toward said head of said screw.

639. The plating system of claim 638, wherein the rate of increase of said root diameter is greater proximate said head of said screw.

640. The plating system of claim 541, wherein said second shaft portion has a generally circular cross section.

641. The plating system of claim 541, wherein said second shaft portion is generally conical.

642. The plating system of claim 541, wherein said first shaft portion has a generally circular cross section.

643. The plating system of claim 541, wherein said first shaft portion is generally cylindrical.

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644. The plating system of claim 541, wherein said tip is at least one of pointed, tapered, and coned.

645. The plating system of claim 541, wherein said tip is configured to be self-tapping.

646. The plating system of claim 645, wherein said tip includes at least one of a pointed tip, cutting flutes, and decreased thread height.

647. The plating system of claim 541, wherein said tip includes cutting flutes that interrupt at least one turn of said thread proximate said tip.

648. The plating system of claim 541, wherein said outer diameter of said thread diminishes proximate said tip.

649. The plating system of claim 541, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

650. The plating system of claim 541, wherein said thread has a pitch in the range of 1.25 to 2.5 mm.

651. The plating system of claim 541, wherein said thread has opposed side faces being angled relative to each other to form an apex of said thread, said side faces forming an included angle in the range of 11 degrees to 30 degrees.

652. The plating system of claim 541, wherein said thread has opposed side faces, said side faces being angled relative to each other to form a base at said root diameter of said shaft and a crest opposite said base, said side faces having a thickness therebetween in the range of 0.25 mm to 0.60 mm at said base.

653. The plating system of claim 541, wherein said screw has an overall length in the range of 10 mm to 22 mm.

654. The plating system of claim 541, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

655. The plating system of claim 541, wherein said head has a top surface that is at least in part curved.

656. The plating system of claim 541, wherein said head has a length parallel to the mid-longitudinal axis of said shaft in the range of 1 mm to 3 mm.

657. The plating system of claim 541, wherein said head has a diameter in the range of 3.8 mm to 6 mm.

658. The plating system of claim 541, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

659. The plating system of claim 658, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

660. The plating system of claim 541, in combination with a bone growth promoting material.

661. The plating system of claim 660, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

662. The plating system of claim 541, wherein at least a portion of said plating system is treated with a bone growth promoting substance.

663. The plating system of claim 541, wherein at least a portion of said plating system is at least in part resorbable.

664. The plating system of claim 541, wherein at least a portion of said plating system is formed of a porous material.

665. The plating system of claim 541, wherein at least a portion of said plating system is treated to promote bone ingrowth between said plate and the adjacent vertebral bodies.

666. The plating system of claim 543, wherein said root diameter of said shaft is curved along at least a portion of the length of said shaft in a direction between said leading end and said trailing end along the mid-longitudinal axis of said shaft.

667. The plating system of claim 666, wherein said root diameter of said shaft is at least a portion of a concave curve.

668. The plating system of claim 543, wherein said root diameter increases along a portion of said shaft in a direction from said leading end toward said trailing end..

669. The plating system of claim 668, wherein the rate of increase of said root diameter is greater proximate said trailing end.

670. The plating system of claim 543, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said second shaft portion having a generally circular cross section.

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671. The plating system of claim 543, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said second shaft portion being generally conical.

672. The plating system of claim 543, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said first shaft portion having a generally circular cross section.

673. The plating system of claim 543, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said first shaft portion being generally cylindrical.

674. The plating system of claim 543, wherein said leading end includes a tip that is at least one of pointed, tapered, and coned.

675. The plating system of claim 543, wherein said leading end includes a tip that is configured to be self-tapping.

676. The plating system of claim 675, wherein said tip includes at least one of a pointed tip, cutting flutes, and decreased thread height.

677. The plating system of claim 543, wherein said leading end of said screw has a tip with cutting flutes that interrupt at least one turn of said thread proximate said tip.

678. The plating system of claim 543, wherein said thread has an outer diameter that diminishes proximate said leading end.

679. The plating system of claim 543, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

680. The plating system of claim 543, wherein said thread has a pitch in the range of 1.25 to 2.5 mm.

681. The plating system of claim 543, wherein said opposed side faces are angled relative to each other to form a base at said root diameter of said shaft and a crest opposite said base, said side faces having a thickness therebetween in the range of 0.25 mm to 0.60 mm at said base.

682. The plating system of claim 543, wherein said screw has an overall length in the range of 10 mm to 22 mm.

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683. The plating system of claim 543, further comprising a head adapted to block further forward motion of said screw through said bone screw receiving hole of said plate.

684. The plating system of claim 683, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

685. The plating system of claim 683, wherein said head has a top surface that is at least in part curved.

686. The plating system of claim 683, wherein said head has a length parallel to the mid-longitudinal axis of said shaft in the range of 1 mm to 3 mm.

687. The plating system of claim 683, wherein said head has a diameter in the range of 3.8 mm to 6 mm.

688. The plating system of claim 543, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

689. The plating system of claim 688, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

690. The plating system of claim 543, in combination with a bone growth promoting material.

691. The plating system of claim 690, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

692. The plating system of claim 543, wherein at least a portion of said plating system is treated with a bone growth promoting substance.

693. The plating system of claim 543, wherein at least a portion of said plating system is at least in part resorbable.

694. The plating system of claim 543, wherein at least a portion of said plating system is formed of a porous material.

695. The plating system of claim 543, wherein at least a portion of said plating system is treated to promote bone ingrowth between said plate and the adjacent vertebral bodies.

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696. The plating system of claim 544, wherein said root diameter of said shaft is curved along at least a portion of the length of said shaft in a direction between said leading end and said trailing end along the mid-longitudinal axis of said shaft.

697. The plating system of claim 696, wherein said root diameter of said shaft is at least a portion of a concave curve.

698. The plating system of claim 544, wherein said root diameter increases along a portion of said shaft in a direction from said leading end toward said trailing end.

699. The plating system of claim 698, wherein the rate of increase of said root diameter is greater proximate said trailing end.

700. The plating system of claim 544, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said second shaft portion having a generally circular cross section.

701. The plating system of claim 544, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said second shaft portion being generally conical.

702. The plating system of claim 544, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said first shaft portion having a generally circular cross section.

703. The plating system of claim 544, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said first shaft portion being generally cylindrical.

704. The plating system of claim 544, wherein said leading end includes a tip that is at least one of pointed, tapered, and coned.

705. The plating system of claim 544, wherein said leading end includes a tip that is configured to be self-tapping.

706. The plating system of claim 705, wherein said tip includes least one of a pointed tip, cutting flutes, and decreased thread height.

707. The plating system of claim 544, wherein said leading end of said screw has a tip with cutting flutes that interrupt at least one turn of said thread proximate said tip.

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708. The plating system of claim 544, wherein said thread has an outer diameter that diminishes proximate said leading end.

709. The plating system of claim 544, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

710. The plating system of claim 544, wherein said thread has a pitch in the range of 1.25 to 2.5 mm.

711. The plating system of claim 544, wherein said opposed side faces are angled relative to each other to form an apex of said thread, said side faces forming an included angle in the range of 11 degrees to 30 degrees.

712. The plating system of claim 544, wherein said screw has an overall length in the range of 10 mm to 22 mm.

713. The plating system of claim 544, further comprising a head adapted to block further forward motion of said screw through said bone screw receiving hole of said plate.

714. The plating system of claim 713, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

715. The plating system of claim 713, wherein said head has a top surface that is at least in part curved.

716. The plating system of claim 713, wherein said head has a length parallel to the mid-longitudinal axis of said shaft in the range of 1 mm to 3 mm.

717. The plating system of claim 713, wherein said head has a diameter in the range of 3.8 mm to 6 mm.

718. The plating system of claim 544, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

719. The plating system of claim 718, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

720. The plating system of claim 544, in combination with a bone growth promoting material.

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721. The plating system of claim 720, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

722. The plating system of claim 544, wherein at least a portion of said plating system is treated with a bone growth promoting substance.

723. The plating system of claim 544, wherein at least a portion of said plating system is at least in part resorbable.

724. The plating system of claim 544, wherein at least a portion of said plating system is formed of a porous material.

725. The plating system of claim 544, wherein at least a portion of said plating system is treated to promote bone ingrowth between said plate and the adjacent vertebral bodies.

726. The plating system of claim 545, wherein said root diameter of said shaft is curved along at least a portion of the length of said shaft in a direction between said leading end and said trailing end along the mid-longitudinal axis of said shaft.

727. The plating system of claim 726, wherein said root diameter of said shaft is at least a portion of a concave curve.

728. The plating system of claim 545, wherein the rate of increase of said root diameter is greater proximate said trailing end of said screw.

729. The plating system of claim 545, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said second shaft portion having a generally circular cross section.

730. The plating system of claim 545, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said second shaft portion being generally conical.

731. The plating system of claim 545, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said first shaft portion having a generally circular cross section.

732. The plating system of claim 546, wherein said shaft has a first shaft portion proximate said leading end and a second shaft portion proximate said trailing end, said first shaft portion being generally cylindrical.

733. The plating system of claim 545, wherein said leading end of said screw includes a tip that is at least one of pointed, tapered, and coned.

734. The plating system of claim 545, wherein said leading end of said screw includes a tip that is configured to be self-tapping.

735. The plating system of claim 734, wherein said tip includes at least one of a pointed tip, cutting flutes, and decreased thread height.

736. The plating system of claim 545, wherein said leading end of said screw has a tip with cutting flutes that interrupt at least one turn of said thread proximate said tip.

737. The plating system of claim 545, wherein said outer diameter of said thread diminishes proximate said leading end.

738. The plating system of claim 545, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

739. The plating system of claim 545, wherein said thread has a pitch in the range of 1.25 to 2.5 mm.

740. The plating system of claim 545, wherein said screw has an overall length in the range of 10 mm to 22 mm.

741. The plating system of claim 545, further comprising a head adapted to block further forward motion of said screw through said bone screw receiving hole of said plate.

742. The plating system of claim 741, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

743. The plating system of claim 741, wherein said head has a top surface that is at least in part curved.

744. The plating system of claim 741, wherein said head has a length parallel to the mid-longitudinal axis of said screw in the range of 1 mm to 3 mm.

745. The plating system of claim 741, wherein said head has a diameter in the range of 3.8 mm to 6 mm.

746. The plating system of claim 545, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

747. The plating system of claim 746, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

748. The plating system of claim 545, in combination with a bone growth promoting material.

749. The plating system of claim 748, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

750. The plating system of claim 545, wherein at least a portion of said plating system is treated with a bone growth promoting substance.

751. The plating system of claim 545, wherein at least a portion of said plating system is at least in part resorbable.

752. The plating system of claim 545, wherein at least a portion of said plating system is formed of a porous material.

753. The plating system of claim 545, wherein at least a portion of said plating system is treated to promote bone ingrowth between said plate and the adjacent vertebral bodies.

754. The plating system of claim 546, wherein said root diameter of said shaft is curved along at least a portion of the length of said shaft in a direction between said head and said tip along the longitudinal axis of said shaft.

755. The plating system of claim 754, wherein said root diameter of said shaft is at least a portion of a concave curve.

756. The plating system of claim 546, wherein said root diameter increases along a portion of said shaft in a direction from said tip toward said head of said screw.

757. The plating system of claim 756, wherein the rate of increase of said root diameter is greater proximate said head of said screw.

758. The plating system of claim 546, wherein said shaft has a first shaft portion proximate said tip and a second shaft portion proximate said head, said second shaft portion having a generally circular cross section.

759. The plating system of claim 546, wherein said shaft has a first shaft portion proximate said tip and a second shaft portion proximate said head, said second shaft portion being generally conical.

760. The plating system of claim 546, wherein said shaft has a first shaft portion proximate said tip and a second shaft portion proximate said head, said first shaft portion having a generally circular cross section.

761. The plating system of claim 546, wherein said shaft has a first shaft portion proximate said tip and a second shaft portion proximate said head, said first shaft portion being generally cylindrical.

762. The plating system of claim 546, wherein said tip is at least one of pointed, tapered, and coned.

763. The plating system of claim 546, wherein said tip is configured to be self-tapping.

764. The plating system of claim 763, wherein said tip includes at least one of a pointed tip, cutting flutes, and decreased thread height.

765. The plating system of claim 546, wherein said tip includes cutting flutes that interrupt at least one turn of said thread proximate said tip.

766. The plating system of claim 546, wherein said outer diameter of said thread diminishes proximate said tip.

767. The plating system of claim 546, wherein said thread has a maximum outer diameter in the range of 3.6 mm to 5.2 mm.

768. The plating system of claim 546, wherein said head has a maximum root diameter no greater than the maximum root diameter of said shaft.

769. The plating system of claim 546, wherein said head has a top surface that is at least in part curved.

770. The plating system of claim 546, wherein at least a portion of said plating system comprises at least in part of one of bone and bone growth promoting material.

771. The plating system of claim 770, wherein said bone growth promoting material is selected from one of bone, bone derived products, bone morphogenetic protein, and hydroxyapatite.

772. The plating system of claim 546, in combination with a bone growth promoting material.

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